



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/786,164	05/24/2001	Jens Hake	04851/	4082

7590 03/29/2004

John M Harrinton Esq
Kilpatrick Stockton LLP
1001 West Fourth Street
Winston -Salem, NC 27101-2400

EXAMINER

FARKHONDAR, FARIMA

ART UNIT	PAPER NUMBER
----------	--------------

2681

DATE MAILED: 03/29/2004

10

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/786,164

Applicant(s)

HAKE ET AL.

Examiner

Farima Farkhondar

Art Unit

2681

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mill, Jr., US Patent 6665529, in view of , Tatebayashi, US patent 6009174.

Regarding claim 1, Mills discloses a procedure for the increased security of authentication process in digital mobile radio systems is characterized by secret SIM-specific code (KI) that are stored in the mobile radio network and in the subscriber identification module (SIM) (column 6, lines 1-3); storing one secret code for the execution of the authentication between subscriber identification module and the mobile radio network of the SIM from stored secret code (column 6, lines 1-10). Mills does not disclose storing several different secret codes and one code (KI) that is selected for the execution of the authentication. However, Tatebayashi discloses storing several different secret codes and one code (KI) that is selected for the execution of the authentication (abstract – lines 2-4). Therefore, at the time of invention, it would have been obvious to a person of ordinary skill in the art to modify Mills, with the above teachings of Tatebayashi, in order to prevent third parties from decoding the secret key and allows communication to be continued without having to provide a new secret key

even when of the secret keys has been leaked or decoded (as suggested by Tatebayashi – column 1, lines 43-49).

Regarding claim 2, the combination of Mills and Tatebayashi further discloses the selection of the code (KI) by the subscriber identification module (SIM), according to the random principle (Tatebayashi – column 7, lines 34-46).

Regarding claim 3, the combination of Mills and Tatebayashi further discloses the procedure is characterized by the mobile radio network that, with special algorithms under specification of a random number (RAND) determines a SRES/KC-pair for all SIM-specific codes (KI) forming, with the respective RAND, RAND/SRES/KC-triplets (Mills – column 5, lines 55-67).

Regarding claim 4, the combination of Mills and Tatebayashi further discloses the formed RAND/SRES/KC-triplets that are stored in the mobile radio network (Mills – column 5, lines 43-54).

Regarding claim 5, the combination of Mills and Tatebayashi further discloses the a RAND of one of these triplets, that is sent to the subscriber identification module from the mobile radio network to initiate the authentication (Mills – column 6, lines 55-63).

Regarding claim 6, the combination of Mills and Tatebayashi further discloses the subscriber identification module that calculated the corresponding values for SRES and KC by the transmitted RAND and the selected code (KI), and sends the determined answer to the mobile radio network (Mills – column 6, lines 55-63).

Regarding claim 7, the combination of Mills and Tatebayashi further discloses the comparison made to verify agreement or conformity of the received SRES with all of the stored SRES for the utilized RAND in the mobile radio network (Mills – column 6, lines 55-63).

Regarding claim 8, the combination of Mills and Tatebayashi further discloses the mobile radio network and the SIM, which is used to encode the transfer or transmission of the matching SRES corresponding KC (column 6, lines 1-10, and lines 57-58).

Conclusion

1. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

US patent 6058477, Kusakabe et al., System and method For Authentication, And Device And Method for Authentication. In authentication using a plurality of cipher keys, the authentication time is shortened. In the case that an encipher key to encipher key are required to take an access to each area out of the area to area in a

memory of an IC card, a plurality of areas to have an access is informed to the IC card from a reader writer, a plurality of cipher keys corresponding to these areas (for example, cipher key 1, cipher key 2, and cipher key 4) is read out, and reduction processing section generates one reduction key from these cipher keys.

US Patent 5887251, Fehnel, Authentication key management for Mobile Stations.

The invention allows a mobile station to receive a command entered by a user for selecting among a plurality of possible values for an authentication key (A-key) stored in its memory, including a default value, a random value and a custom (user-defined) value for the A-key.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Farima Farkhondar whose telephone number is 703-305-6285. The examiner can normally be reached on 8:00 to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Erika Gary (703-308-0123) or Nguyen Vo (703-308-6728) can be reached. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Farima Farkhondar-Tonsey
Examiner
March 18, 2004

Nguyen T. Vo
3-19-2004

NGUYEN T. VO
PRIMARY EXAMINER